

If you'd like to get started with chickens, here are the basics

By Richard D. Kepple

Wouldn't it be great if there were an animal that could provide the family with food, control insects in the garden, eat most of the kitchen scraps, and convert them into a great fertilizer while requiring little space? Introducing the chicken, an old idea in the new age of technology.

Chickens have the most efficient digestive system of any land animal. They have no stomach, but instead have a *crop* at the base of their neck to store the food, and a *gizzard* filled with gravel which literally grinds up anything passing through it. Near the end of the digestive tract is where the nutrients, minerals, proteins, and fats are extracted, and the rest is history. Regardless of the breed, chickens will eat almost any fresh scraps that you would normally put down the garbage disposal. Chickens are *omnivores*, which means they will eat insects, snakes, fruits, vegetables, weeds, grass clippings, and an endless list of other things. They can eat things that would kill a goat.

Starting out

The average family can manage a few hens and a rooster or two with very little effort. Normally you will need about two chickens per person to harvest two eggs a day for each family member. Dr. Robert Moreng, a retired Colorado State University animal science professor has said, "Surprisingly, the little old ladies with chickens in their backyard have a greater egg production per hen than the commercial industries do."

If you want to raise chickens for dual use, that is for meat and eggs, you would probably want one of the heavier breeds. Most of the heavier

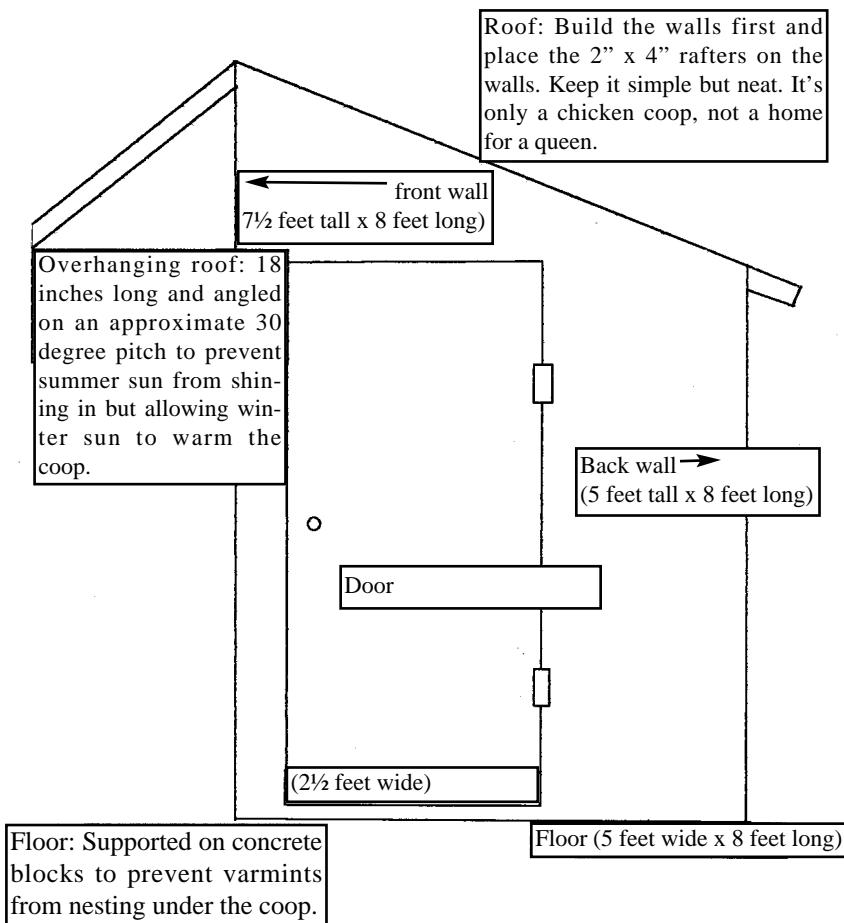
breeds produce a brown egg. Dr. Moreng says the best dual use chicken is the Rhode Island Red. However, if you have small children, he says, the best chicken is the Barred Plymouth Rock, a gentle breed that is unlikely to peck people. The Black Australorp is an Australian breed that is a dual purpose chicken and is described as an extremely good layer. The White Leghorn, a favorite of the commercial growers, is also a good layer, but the breed has a tendency to peck each other, which will result in cannibalism.

There are also the smaller chickens such as the bantams. There are many

bantam breeds, and many are exotics for show quality. A good rule of thumb for a tight budget is, the smaller the chicken, the less she will eat, and consequently, the smaller the egg.

Once you have determined the breed of chicken you would like to raise, then the next decision is whether to buy chicks or ready-to-lay chickens. You should use caution when buying hens old enough to lay, because a chicken raised on an egg farm will most likely be burned out. These chickens are exploited for their laying ability. They are given hormones and are artificially manipulated to cause them to lay as much during the year as possible. Sadly, their average laying life is just a few years.

If you buy adult chickens from a grower or the proverbial little old lady in the country, make sure the hen isn't



Side view of the coop

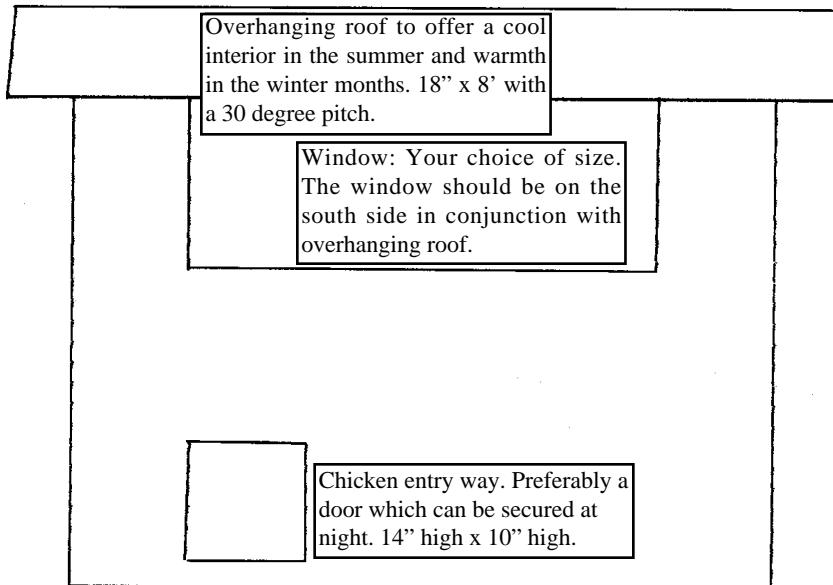
near the end of her life. A happy hen on a small farm may often lay for up to eight years or more, depending on the breed and the conditions. Therefore, you may pay quite a sum for a hen with a few years left in her.

Brooding

The cheapest way to get started raising chickens is to buy chicks. Chicks can be purchased in two different methods: *sexed lots*—that is, sorted into *cockerels* (males) and *pullets* (females)—or in a *straight run*. When you buy chicks in a straight run, you are taking your chances on how many cockerels and pullets you will get. You can buy them from your local feed store or order them from one of the many mail order poultry houses. (Two of them are listed at the end of this article.) Most of the mail order houses are reputable companies that offer money back guarantees.

No matter how you buy chicks, when you get them home, keep them in a draft-free environment with a red heat lamp suspended about 18 inches above them. If you purchased more than 25 chicks, you may want more than one lamp. The bulb should be at least 250 watts, and you should use a UL-approved receptacle and heat shield specifically designed for use as a heat lamp.

During the first week, the heat lamp should keep the chicks at a temperature of 93 to 95° F. The second week, the temperature should be reduced to 88 to 90° F. If you are unable to measure the temperature near the chicks, just place the heat lamp about 30 inches above them. If it's too close, and they are hot, they will move away from the center of the lamp. If they are too cold, they may huddle underneath the lamp (possibly causing the suffocation of a few of the flock). In either case, you may have to adjust the lamp up or down accordingly. Normally, the temperature should be reduced 5° F a week. You can accomplish the heat reduction by simply raising the



Front view of the coop

heat lamp until you reach the desired temperature. Chicks just need enough room to move toward or away from the heat lamp to find their own comfort zone.

Housing

Space requirements, type of litter, lighting, heating, and proper ventilation are all important considerations in the design of a chicken house or coop. You may want to contact your county agricultural extension agent, who should be able to offer advice on the type of housing design best suited for your particular climate.

Generally, bantams, or small chickens, need approximately two square feet of floor space per individual. Heavy breeds, weighing six to eight pounds, need up to four square feet of floor space for each individual. Generally, chicken houses should be insulated and have adequate ventilation, but with no drafts. Windows are desirable, since sunlight disinfects better than many commercial cleaners will.

Litter, preferably wood shavings, should be spread on the floor to soak

up moisture. However, too much moisture will create ammonia, which is deadly to the flock. The litter should be four to six inches deep and will usually last four to six months. The chickens generally will turn the litter by their constant scratching. If the litter becomes unusually dirty, it should be removed and replaced with clean litter. Simply put the discarded litter in your compost pile to let it cook for a while. Fresh chicken droppings are very high in nitrogen and will burn most garden plants.

Free range or fenced

Giving them free range is probably the easiest and least costly method of raising chickens. If you let the chickens wander away from their coop and pen, they will find and eat their favorite insects, weeds, and all manner of forage. Free range chickens are becoming trendy in some areas and are often labeled as "organic." They do seem to be healthier and happier, but there are drawbacks to pasture chickens. Predators have ample opportunities to attack and kill them. If you're going to let your chickens wander, it's a good idea to do it when you

know you will be home. Always lock them up in the pen and even the chicken house at night to discourage predation. Another drawback: eggs are sometimes harder to find with free range chickens. You may find yourself playing a game of hide-and-go-seek reminiscent of an Easter egg hunt.

Fenced chickens are not necessarily unhappy. An ample supply of feed, yard clippings, garden weeds, and kitchen scraps will pacify the most unruly of flocks. If you have a predator problem, you may want to opt for the fenced chicken yard. I have a fenced area adjacent to the chicken yard for a pasture. I water it and allow the weeds and grass to grow tall. It is an area safe from most predators. Regardless of the method used to confine your flock, you should still keep feed in the coop for them and always have fresh water available for them.

Cannibalism

Chickens can become very aggressive toward one individual in the flock and may constantly peck at the *vent* (anal area). There are many factors which can trigger cannibalism in chickens, and this undesirable behavior can be prevented. Overcrowding in the coop may cause cannibalism. Chickens need a comfort space and each size of bird is different. Too much light can cause pecking as well, especially in the winter when a heat lamp is being used to keep the flock warm. You can avoid this problem by using a red heat lamp bulb in the coop instead of a white heat lamp bulb. Overheating is another triggering mechanism of cannibalism. Raise the heat lamp or increase the ventilation to lower the temperature in the coop. It's important to have ventilation without drafts. A new chicken, a different breed of chicken, or the one "on the bottom of the totem pole" may be the victim of cannibalism. If this happens and the others just won't leave it

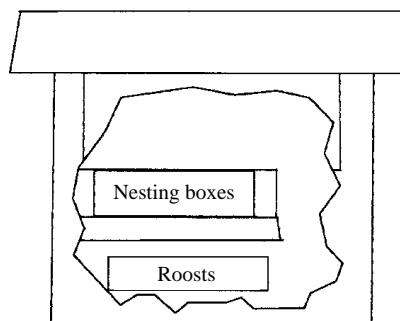
alone, your only alternative may be to separate it from the others.

Roosters will often mate with a hen so often that her back has no feathers, but this is far different from cannibalism. A rooster is only doing a service, unlike the cannibalistic chickens which are trying to kill their coop mate.

If you find that you have a problem with cannibalism in a flock, about the only way to stop the behavior is to remove the unlucky chicken. You will still have to determine the cause of the behavior and make the necessary adjustments, or the flock will simply begin pecking at the next bird in order of dominance. Normally, if precautions are taken, cannibalism can be avoided.

Feed

Everyone has probably noticed that commercial eggs have a light yellow yolk. This is because the chickens are provided with only commercial laying feed. Often, the white of the egg is runny, and this is an indication of its age. The whites of fresh eggs usually stand up and don't run or spread out like the commercial eggs. Depending on what you feed the chicken, the yolk may be a pale yellow (as with a strict commercial feed diet) or they may be orange-yellow, as with free-range chickens.



The interior. Nesting box dimensions: individual, 12x12; community, 12x48. Roosting poles: one or two tree limbs at least two inches in diameter.

I feed my Black Australorps vegetables and fruit along with chicken scratch and 16% lay crumbles. I prefer to feed crumbles as opposed to pellets because there is some evidence that pelleted feed will induce cannibalism in a flock. If you want to stay with an organic diet, the best thing to do is to raise your own grain. Don't feed very much corn, as that will put on a lot of fat around the ovaries, and a fat chicken lays no eggs. Wheat, milo, barley, and oats are the grains most often used. The goal is to reach as close to a 16% protein diet as possible for the laying hens.

You will need to provide your flock with a diet of crushed oyster shell as a calcium source for egg shell production. You can find oyster shell at your local feed store. You may also feed your birds egg shells, but here is a word of warning: dry and crush them first, or they may begin eating all the eggs they lay. Eating an occasional egg is normal, but not all of them.

A high grade fertilizer

Ten chickens can produce around 380 pounds of wet manure annually, which when dried will yield approximately 92 pounds of high grade fertilizer. Chicken droppings have twice the volume of the food intake, because the bulk of the excrement is water. Chicken droppings are high in nitrogen—nearly 9%—and will burn many garden plants if applied raw. However, the droppings and the litter from the chicken coop can be composted to yield a good organic fertilizer. My lawn looks fantastic since I started applying chicken compost to it.

Diseases and viruses

It cannot be denied that chickens do carry diseases and viruses. I was concerned about catching something from my own birds, so I will pass on the information that I found.

Most chicken diseases are *species specific*; that is, they cannot be trans-

mitted to humans. The diseases that can be transmitted to humans are eastern encephalitis, western encephalitis, and St. Louis encephalitis. However, studies by the Centers for Disease Control (CDC) have shown that young chicks, from birth to six weeks old, are very susceptible to disease and viruses. "It's usually the younger chicks that can infect a lot of mosquitoes. Mosquitoes pick up the virus from the young chicks and pass it on to humans," says Dr. Robert McLean of the Fort Collins, Colorado, CDC office. McLean leads the avian research for arbovirus research in the Western United States. McLean says that chicks six weeks old to six months old will almost never pass the virus on to humans, and full-grown chickens have a very slim chance of harboring the virus. McLean states that research suggests the temperature of the chicken determines if the virus can survive in its body. A chick's body temperature is 20° higher than a full grown chicken's body temperature.

The best way to prevent disease is to rotate your chicken yard about every two years to protect the health of the flock. Another tip may be to brood your chicks in the early spring before mosquito season begins.

The organic link

Chickens can be very advantageous for the organic gardener. If you turn a few chickens loose in the garden after the plants have grown a few inches tall, the chickens will pick the plot clean of slugs, earwigs, sowbugs, and other pests. Bantams are especially good in gardens. It's helpful to let the chickens become familiar with the garden. The best way to do this is by growing the garden near the coop.

Finally, my best advice is to give the chickens tender loving care. There are some that say chickens don't need a heat lamp in the winter, and perhaps I spoil my chickens, but my black Australorps' egg production falls off

only on the coldest of days. A heat lamp will also keep the water from freezing and save you many trips out to the hen house to dump the ice. If you find you cannot provide a heat lamp, the chickens will learn to drink water when it is provided before it freezes. You will have to change it more often, though.

A small flock of chickens will provide you with plentiful eggs as well as delicious meat if you so choose. I keep nine hens and a rooster, and the girls lay an average of 45 eggs a week. What I don't eat, I sell to my neighbors to pay for chicken feed. Generally, the flock is self supporting.

Several mail order companies specialize in chickens. A couple are:

Sunny Creek Hatchery
Red Lake Falls, MN 56750
(218) 253-2291

Murray McMurray Hatchery
Webster City, IA 50595-0458
(800) 456-3280
(515) 832-3280 Δ